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ABSTRACT

This research report explores the extent to which the Early Childhood Environment Rating Scale (ECERS) (Harms and Clifford, 1980) remains a valid instrument when used to make cross-national comparisons of quality, and the advantages and disadvantages of using ECERS for this purpose. ECERS was developed to be used by a trained observer to rate the quality of early childhood settings. The majority of studies using this rating scale have been carried out in North America by American investigators, but ECERS is now beginning to be used by researchers in other countries. Some researchers have expressed reservations about its appropriateness for early childhood settings which are different from the settings for which it was developed. In this study, ECERS was used as part of a qualitative investigation into nursery provision and practice between 1990 and 1994 in four countries: the United States (New York City), Spain (Barcelona), Italy (Arezzo), and Sweden (Harnosand). Major findings include: large variability in ratings and lower mean scores (4.3) achieved by programs in New York; uniformly high ratings of programs in Sweden (6.9); and mean scores of 5.4 (Spain) and 6 (Italy) for ratings of centers. Problems identified in using ECERS included the meaning of particular items on the scale, minimal standards, and omission of items and whole dimensions of experience. Advantages of using ECERS included the short time span for administering the scale and its ability to provide comparison measures on a number of criteria which child care professionals have agreed are significant. Limitations include unstated theoretical assumptions, a failure to differentiate among high quality programs, the omission of items that assess some aspects of programs, and the need for not only the child's experience but also the experience of workers and parents (and other stakeholders) to be taken into account when assessing quality. (DR)

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Using the Early Childhood Environment Rating Scale as a measure to make cross-national evaluations of quality: Advantages and Limitations

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Using the Early Childhood Environment Rating Scale as a measure to make cross-national evaluations of quality: Advantages and Limitations

Introduction

How useful is the Early Childhood Environment Rating Scale (ECERS) (Harms & Clifford 1980) as a research instrument in making cross-national comparisons of the quality of nurseries?

This paper will briefly outline the ECERS and discuss the extent to which it can be used as a universal evaluative tool to measure quality. The author will refer to her use of the ECERS scale in cross national contexts, (four countries), to comment on its advantages and its limitations.

The Early Childhood Environment Rating Scale (ECERS) is a measure that can be used by one observer to make ratings of the quality of nursery settings. It was developed by Thelma Harms and Richard Clifford in 1980 at The Frank Porter Graham Child Development Center at North Carolina University.

(With others they have also developed several other instruments for measuring the quality of daycare,including the Family day Care Rating Scale (1989) and more recently the Infant/Toddler Environment Rating Scale ITERS, (1990 Harms, Cryer and Clifford).

The ECERS is reliable, It has an inter-rater reliability of .884 (25 classrooms)(Harms and Clifford 1980).

The scale is made up of 37 items, chosen by North American early childhood professionals as being indicators of quality. The items cover different aspects of the nursery environment. The different items have been grouped to form seven subscales that have a face validity - (a recent factor analytic and correlational analysis of the ECERS carried out by Scarr et al. (1994) has not found any empirical support for the existence of separate subscales, since items appear to be highly correlated with each other and with the total mean score). These are: Personal Care Routines; Furnishing and Display for Children; Language-Reasoning Experiences; Fine and Gross Motor Activities; Creative Activities; Social Development; Adult Needs.

There are a varying number of items per subscale ranging from four items to seven. They are grouped as follows:

Personal Care Routines

Greeting/departing

Meals/snacks

Nap/rest

Toileting

Personal grooming

Furnishing and Display for Children

Furnishings (routine)

Furnishings (learning

Furnishing relaxation

Room arrangement

Child related display

Language- Reasoning Experiences

Understanding language

Using language

Reasoning

Informal language

Fine and Gross Motor Activities

Fine motor

Supervision (Fine Motor)

Gross Motor space

Gross Motor equipment

Gross Motor time

Gross Motor supervision

Creative Activities

Art

Music/movement

Blocks

Sand/water

Dramatic play

Schedule (creative)

Supervision (creative)

Social Development

Space (alone)

Free play

Group time

Cultural awareness

Tone

Exceptional provisions

Adult Needs.

Adult personal area

Adult opportunities

Adult meeting area

Parent provisions

HOW HAS IT BEEN USED ?

Many investigators now use the "Early Childhood Environment Rating Scale" to evaluate the quality of nursery settings. It is being used for regulation and monitoring and for staff training, as well as being used as a research instrument.

A number of investigators have found correlations between nursery scores of quality on the ECERS and measures of children's language, intellectual and social development (for example, in terms of vocabulary (Schliecker et al. 1991) and social adjustment (Kontos 1991). (The scale was used as one of the measures of assessing daycare quality in the High Scope Perry project (1993).)

The majority of the studies have been carried out in North America or by American investigators, in the USA by Bryant et al 1991, Kontos & Fiene 1987, Mednick & Fiene 1990,Fiene & Mednick 1991, Kontos 1991, Howes et al. 1992, Scarr et al. 1994 , Whitebook, Howes & Phillips 1989, and in Bermuda, by US researchers, (McCartney 1984, Phillips, McCartney & Scarr 1987), and in Canada, (Goelman & Pence 1986, Goelman & Pence 1987, Schlieker et al. 1991). However it is now beginning to be used by researchers in other countries. Farquhar (1990) used it in New Zealand, Rossbach (1990) used it in a study of 68 German Kindergartens and Statham and Brophy (1991) have recently used it in Britain to assess the quality of playgroups.

This use, in contexts outside the US has prompted at least one set of investigators Brophy and Statham, to have reservations about its appropriateness for early childhood settings which are different from those in which the scale was developed.

This paper will explore this issue further and consider to what extent the ECERS remains a valid instrument when used to make cross-national comparisons of quality.

METHOD

The author used the ECERS as part of a qualitative investigation into nursery provision and practice between 1990 and 1994 in cities in four countries, New York,(USA), Barcelona (Spain), Arezzo (Italy), and Harnosand, (Sweden) .

The nurseries in which the author carried out observations and interviews were chosen by contacts in the countries concerned for both their willingness to participate and for their representativeness. A minimum of four institutions which took children under three (except in Sweden, where one of the nurseries took children from (3-7), were visited for at least half a day in each city.

RESULTS AND DISCUSSION

The Major findings

There was a large amount of variability in the scores achieved by nurseries in New York, where in some nurseries items were given scores as low as one or two, considered to be inadequate , while in other nurseries items were scored in the excellent category, (a score of seven). The nursery mean scores ranged between 2.6 and 5.4.

In contrast nurseries in Harnosand, Sweden uniformly tended to gain excellent scores. In Arezzo scores were usually in the range of 6 or 7 , and in Barcelona there was a little more variability but item scores were usually in the good to excellent range of 5-7. (A mean score of at least 5 on the ECERS is the score which Bryant et al. (1991 p791) believes is the minimum for developmentally appropriate practice.)

The mean scores in the various countries were respectively:

New York	4.3
Barcelona	5.4
Arezzo	6
Harnosand	6.9

As can be seen, the New York nurseries were less likely to achieve 'good' ratings, (scores above 5) .

However these figures need interpretation and qualification for the reasons which this paper will discuss.

There are three main problems. They are firstly a problem of 'meaning';secondly, the standards being too minimal;and thirdly omission. These concern both individual items and the scale as a whole.

To illustrate these points some examples will be given.

1.Meaning

There is often a problem of the meaning of the items. When settings are different the meaning of the presence or absence of particular materials or of an activity can be different.

Because scores were dependent on the presence of certain equipment, experiences or ways of scheduling that are common in North America,it was not always clear whether to interpret items literally or in terms of what one believed to be their intended meaning.

For example,

(i) Item 24, Sand/Water

The notes say " The intent of this item is that children have outside and inside (if needed because of weather conditions) regular access to sand and water."

This is difficult to score in Sweden. There, they did not necessarily have sand and water inside, but it was always available outside. When challenged as to what happened when it rained, they said that the children loved it then, they could carry buckets of water from place to place, create waterfalls down slopes, pour it into the sand. They said there were no bad weather conditions, only bad clothes. (The children in these nurseries were always equipped with changes of clothes for the outside; wellington boots; waterproof coats and hats , and other equipment like skates, and sledges.)

(ii) This emphasis on the outdoors also had implications for items in other subscales, such as those concerned with fine and gross motor play. In Sweden they had all the materials but children seemed to spend less time inside at table top activities than in, for instance, Arezzo. Instead , in Sweden, the children showed their fine motor skills in other ways. - in putting on and taking off their own outside clothes several times a day by themselves. This involved fastening coat buttons and shoe laces, and other fine motor tasks. (This was in contrast to New York, where in one nursery, children had to wait silently with their hands under the table, while they were selected, one by one, to be dressed in their outdoor clothes by a member of staff.)

Thus self help and fine motor skills could be acquired through handling one's own clothes and belongings and outdoor equipment as in Sweden , yet the assumption of the items concerned with fine motor skills, seemed to be that these would be provided by a variety of table top activities.

2. Standards too minimal

The standards for scoring can be too minimal.

(i) In item 22,' Music', the quality of experience is not scored. The criteria are whether musical experiences are provided , so for an excellent score a nursery must provide music daily. The ratings do not indicate whether there is specialist music teaching for the children. For example, it is often expected in Sweden that staff have the ability to play the guitar or piano. In Barcelona there are visiting music specialists who develop a music curriculum for children under three. For example, nine month old babies listen to short excerpts of Mozart; small groups of toddlers indicate rhythm and pitch, while music is played to them.

This emphasis on developing a musical education, is not picked up by an item for which an excellent score can be gained if the children's carers have regular singing sessions with them. There is no item which asks the observer to check for the musical adequacy of the experience. its depth or quality.

Other examples could be given.

(ii) The item on cultural awareness has been referred to by other investigators (Brophy and Statham) as being insufficient to cover the emphasis on antiracist and multicultural aims that the playgroups they studied, had. Nor was it sufficient to cover the various ways in which related issues were seen as important, e.g in Barcelona the emphasis on a Catalan heritage and in a black nursery in Harlem, New York , in giving the children a pride in black culture. The item was written in such a way as to presume one was introducing children in a majority culture to the needs of the minority, not that one was trying to redress the balance for 'minority' (the less dominant cultures's) children.

(iii) Tone.

There was only one item which covers the tone of a nursery. This is not sufficient to cover the emphasis that is put on children's care for each other (in Sweden), what they call 'sibling relationships'.

3. Omission

There is a problem of omission, both the omission of items but also the omission of

whole dimensions of experience.

(i) In some nurseries there was obvious care for the staff's well being, their backs for example. In Sweden this was shown by specially constructed high chairs for the children,and in Arezzo and Barcelona by steps for toddlers to climb up to the changing table. In contrast in New York, there was little evidence of thought for staffs' needs.

But there was an omission of any item that would score for this.

For example, the criteria for scoring for routine furnishings was that there should be "sufficient number of pieces of child sized routine care furniture in good repair." These should be "child sized: child's feet should rest on floor when seated in chair; table height comfortable (knees fit under table, elbows above table). In Sweden there was child sized furniture. However there were also high chairs provided which were specially designed with steps that the children could negotiate themselves, so that they still had autonomy, but which were also designed with the needs of the staff in mind as well. The chairs protected the backs of the staff, by not always requiring them to bend and allowed them to be comfortable at shared meal-times with the children.

There was no item which coded for concern for the staffs' well being. Yet making the staff feel that they were cared for and also valued, could well have impacted on their relations with the children.

(ii) But this omission is a pointer to a further lack of a dimension concerning how staff are valued and the nature and quality of relationships between staff.

This is an indication of the omission of other items concerning institutional structure or organisation, which for instance might concern staff stability or the organisational system. One cannot code for whether staff relationships are hierarchical or cooperative/democratic ;(as for example in Barcelona, which is non-hierarchical in organisational structure and where there is a rotating elected supervisor.)

(iii) Nor was there any way of scoring for an aesthetic dimension. In Arezzo, for instance, it was clear that there was an effort to make the nurseries beautiful places for the children to be in, and in which to work, with an emphasis placed on the quality of the materials used; on light, space and colour.

(iv) Children's relationships with each other.

There is a lack of items or of a whole dimension relating to children's relationships with

each other. For example, are these planned for and encouraged? In Italy and Spain, children are with others the same year of age. They are expected to become members of a group. This has other implications for the stability of groupings in terms of both children and staff (whether key worker systems operate or not).

In Sweden children are not only with others the same age but also with children both younger and older in what are called sibling groups. Here a further aspect is added, not only the encouragement of friendships, but also of caring for each other, kindness and taking responsibility.

(v) The taking of responsibility

In Sweden this encouragement of the taking of responsibility also extends to taking responsibility for the environment. Children are encouraged, for example, to look after and water plants inside the nursery and to take an interest in, and responsibility for caring for, plants,insects and animals, as part of the natural environment outside the nursery. Such values "democracy, equality, solidarity, security, responsibility" are stated as part of the Swedish Government guidelines for nurseries (The National Board of Health and Welfare) ,but not reflected in the ECERS.

One nursery in Sweden described their aims as:

To ensure that children and parents should feel safe and welcome everyday.
To teach children:
that each person is valued;
to take good care of each other;
to show kindness;
and to take responsibility for themselves and the group.

These are not cognitive aims and they are also ones directed at the present, not just the future. (I did not see a quarrel between children in the Swedish nurseries.)

Such different aims and values have a pervasive effect since they will affect the organisation of the nursery, the nature of the grouping system, age or sibling grouping and the stability or transitory nature of staffing or children's groupings. They may affect assumptions about room layout, and how many different rooms, (whether open plan, or classroom based) and staff, children have access to.

(vi) Present versus future directed

But in particular the emphasis on the aesthetic, the emphasis on relationships between the children in the here and now, and the emphasis on children enjoying themselves, that is in the Swedish nursery, all suggest an interest in the present that perhaps is lacking in what appears to be the achievement, and future directed cognitive bias of many items on the ECERS.

CONCLUSIONS

Advantages and Limitations

Advantages

It can be undertaken in two hours. It can provide comparison measures on a number of criteria which child care professionals have agreed are significant.

Limitations

Its limitations arise from the way in which the scale was developed. The items and criteria for scoring were chosen from those thought important by experts in the USA. But the theoretical assumptions behind the item choice, are not stated.

However the notes for scoring seem to fit well with certain American cognitively based, achievement oriented and future based philosophies. There seems to be an implicit curriculum which perhaps fits well with Bredekamp's (1986) concept of developmental appropriateness. (This is discussed in Bryant et al. 1991.) However because the theoretical justification is not made explicit, it is difficult when using the measure in countries which do not share the American, or perhaps, English speaking, psychological child development tradition, to always know whether nurseries should be given high or low scores when making judgements about a number of the items. Scores may well depend on whether the scoring

system is followed literally or whether interpretations are made which take cultural and/or theoretical differences about curriculum aims and practices into account.

Where provision is uniformly good and in Harnosand, Sweden, and Arezzo, Italy, where there was little variation and almost all the nurseries scored in the good to excellent range on most of the criteria, then we may need new measures developing in order to differentiate between nurseries and these measures may need to meet the curriculum aims and criteria which the staff and organisers of the child care and educational system believe to be important.

But currently many aspects of nurseries, which may affect their quality in terms of the environment they provide for children are not picked up by the ECERS and its use can obscure rather than illuminate, what different countries see as the most significant aspects of the care and education system and curriculum.

It would always be possible to add further items and miss out others but the meanings, goals, purposes, and aims behind the provision of any piece of equipment, activity, schedule or organisational structure may be different in different settings. Therefore the theoretical justifications and reasons for selection need to be made explicit.

There is also a wider discussion to be had about the meaning of quality (Pence & Moss 1994). It may not be only the child's experience but also those of workers and parents, of society and of other stakeholders that need to be taken into account.

Therefore we need to develop measurement tools which explicitly state the values and theoretical perspectives behind their construction.

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How useful is the Early Childhood Environment Rating Scale (ECERS) as a research instrument in making cross-national comparisons of the quality of nurseries?

The paper briefly outlines the ECERS and discusses the extent to which it can be used as a universal evaluative tool to measure quality. The author refers to her use of the ECERS scale in cross national contexts, to comment on its advantages and its limitations.

The author used the ECERS as part of a qualitative investigation into nursery provision and practice between 1990 and 1994 in cities in four countries, New York,(USA) Harnosand, (Sweden), Arezzo (Italy) and Barcelona (Spain). The nurseries in which the author carried out observations and interviews were chosen by contacts in the countries concerned for both their willingness to participate and for their representativeness. A minimum of four institutions which took children under three were visited for at least half a day in each city.

The author uses examples derived from this research to argue that while the scale may have some advantages in that, ratings can be undertaken in two hours, and the scale can provide comparison measures on a number of criteria which child care professionals have agreed are significant, it also has a number of disadvantages. Because the scale is empirically rather than theoretically based and is not explicit about the evaluative categories which underlie it, its use can obscure rather than illuminate, what different countries see as the most significant aspects of their care and education provision.

The paper concludes that we need to develop measurement tools which explicitly state the values and theoretical perspectives behind their construction.

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